

old man was full of his plan to exhibit the boat in a museum and of selling his account of his adventures to a magazine.

The crew left on Easter Island were rescued sooner than they had expected. A British tramp, the *Knight of the Garter*, put into Easter Island for emergency repairs, having broken down. The castaways left with her for Sydney, Australia, and from there reached San Francisco by the steamship *Ventura*, ten months after they had sailed away on the *El Dorado*. That schooner was never sighted again.



CONFERENCE ANNOUNCEMENT

The XIVth Congress of the International Union of Prehistoric and Protohistoric Sciences, September 2-8, Liege, Belgium

Symposium Title: Environmental, Geomorphological and Social Issues in Easter Island Prehistory

Christopher M. Stevenson, Symposium Chair
Virginia Department of Historic Resources

Abstract: Easter Island prehistory has been intensively investigated over the last two decades with an emphasis on archaeological inventories and the reconstruction of religious sites. However, recent research has taken on a new emphasis directed at past landscape use and its change over time. In this symposium, we present the most recent research programs and demonstrate how soil science and environmental research methods can be used to develop a context for the interpretation of the archaeological record. Studies of past agronomic potential, environmental diversity, soil structure and depositional history are used to help reconstruct the landscape that was modified by forest clearance, agricultural systems and domestic settlements.

Individual Papers, which will be published in a future issue of *Rapa Nui Journal*, include:

SOIL CHARACTERISTICS FOR CROP GROWTH IN HISTORICAL PERSPECTIVE IN THE LA PÉROUSE AREA OF EASTER ISLAND

Geertrui Louwagie, Roger Langohr and Jari Mikkelsen
Ghent University, Laboratory of Soil Science

Abstract: Physical land evaluation methods are applied in order to test hypotheses about past land use systems on Easter Island. For a better understanding of the soilscape and its dynamics, now and in the past, the subject is studied according to the scale of observation. With regard to past agronomic potential, only small scale soil variability, of several meters up to several decametres, is further discussed. In the La Pérouse area, a pedotopotraverse that crosses a lava plateau, a lava ridge and inter-lava-ridge-depression is studied. Profile 1, in plateau position, has parent rock at 1 m depth. Profile 2, situated on a concave slope, is shallow (40 cm). Profile 3, in depression position, is up to 2 m deep and has a thick (70 cm) bioturbated surface horizon

and possibly a buried A horizon at about 1 m depth. The area as a whole has a considerable amount of surface stoniness. This stoniness is inversely related with the distance to rock outcrops, but is partly due to stone mulching practices. The profiles are evaluated with regard to their potential for some predominant food crops on Easter Island, such as arrowroot, banana, sugarcane, sweet potato, taro and yam.

FRESHWATER AQUATIC BIOTA OF EASTER ISLAND

Henri J. Dumont, Institute of Ecology
University of Ghent, Belgium

Abstract: Virtually all our current knowledge of the aquatic biota of Easter Island was gathered in the previous decade. An overwhelming conclusion is the extreme poverty of the assemblages. For example, there are 70 species of diatoms, 19 species of rotifers, a single cladoceran, a copepod, three ostracods and a single dragonfly. Any (sub)tropical lake with a substantial variety of aquatic environments should be home to about 250 rotifer species, so the degree of impoverishment of Easter Island's fauna is on the order of 90-95%. In *Cladocera* the situation is even worse: the single *Alona weinecki* is a subantarctic species, and has therefore almost certainly been introduced by man, with a high probability that Captain James Cook was the culprit. Likewise, a small but significant fraction of the diatoms, ostracods, the *titora*, and possibly a sponge (if the so-called spicules found are not phytoliths of *titora*) is of South-American origin and arrived simultaneously on the island, suggesting a (destructive!) contact with South-American Indians in the 14th century. Algal taxa other than diatoms have not yet been studied, but a cursory inspection of available plankton samples suggests, again, an extreme impoverishment, and the same applies to such groups as the plathemintins and aquatic *Diptera* (all other groups except—probably—the protists being completely absent). Many oceanic islands partly make up for their poor biota by invasions of marine species that secondarily adapt to freshwater. A lack of true rivers has all but completely eliminated even this possibility on Easter Island. However, in few brackish coastal rock pools, at least one endemic crab and a probable endemic shrimp have been found.

NEW EVIDENCE OF THE SCHOENOPLECTUS CALIFORNICUS TOTORA ARRIVAL AT EASTER ISLAND BASED ON PHYTOLITH ANALYSIS

L. Vrydaghs¹, Ch. Cocquyt², T. Van de Vijver², P. Goetghebeur²
¹Laboratory of Palaeontology, University of Ghent, ²University of Ghent, Department of Biology, Laboratory of Botany

Abstract: The Easter Island vegetation shifted from a forested landscape to open grassland and incorporated new plant introductions. Among the latter was *Schoenoplectus californicus totora* (formerly *Scirpus californicus totora*), a reed widely used in South America. In 1998, an interdisciplinary study of a Rano Raraku core by Dumont and others proposed a date for its arrival on Easter Island in the second half of the 14th century. Can phytolith analysis confirm this proposed date? A comparison between the phytolith spectra from an archaeological site in the

La Pérouse area and the Rano Raraku lake core material establishes that some forms are unique to each location while others are common to both sites. A thin faceted body, morphologically similar to the phytolith extracted from the *Schoenoplectus* tissues, was recorded only for the Rano Raraku core. It appeared at a depth of 137 cm and remains present to the top of the core. This observation suggests that the appearance of the thin faceted body in the core does not occur simultaneously with the phytolith record of palaeoenvironmental changes due to natural events, but with those due to human activities. All elements support its identification as the *Schoenoplectus californicus* phytolith that appears earlier than the date given by Dumont and others.

EVOLUTION OF THE VEGETATION AND
ARCHITECTURE ON EASTER ISLAND
Michel Orliac and Catherine Orliac
Natural History Museum, Paris, France

Abstract: During our 1995 and 2000 fieldwork, eighteen pits were opened at six major cultural sites on Rapa Nui and more than seventy thousand carbonized fragments of wood, stalks and fibers were found. These vestiges enabled us to reconstruct the evolution of the flora since times where an abundant flora of various shrubs and big trees grew beneath giant palms (about the 13th century AD). This ends by the AD 1650s, whereafter not a single tree offers its beneficent shadow. The plenteousness of wood, in accordance with Polynesian economy, was abruptly followed by drastic scarceness. Usually, the end of the moai period is believed to be the main consequence of this need for wood; further, what were the adaptations this penury provoked on land organization, as well as on architecture of the monuments and houses?

THE IMPACT OF PREHISTORIC AGRICULTURE ON THE
EASTER ISLAND LANDSCAPE

Christopher M. Stevenson¹ and Sonia Haoa²

¹ Virginia Department of Historic Resources; ² Isla de Pascua

Abstract: One of the first objectives of the Polynesian settlers on Easter Island [Rapa Nui] (circa. AD 700) was to establish the agricultural gardens and fields in which the staple crops would be grown; a process which continued over the next thousand years as the population grew and settled the terrain. In our landscape survey and geomorphological investigations on the northern coast of Easter Island it has been documented that the agricultural system was geographically extensive. However, the dating of prehistoric gardens by radiocarbon and obsidian hydration methods reveal temporal patterns in landscape use. Early coastal settlement (AD 700-1000) is followed by a period of expansion into interior valleys by AD 1100 and the creation of large elite-managed plantations by AD 1300-1400 which are abandoned by AD 1700. Other portions of the island with suitable microenvironments for agriculture show little evidence of prehistoric settlement or use for farming. The identified trends in prehistoric landscape use are discussed in relation to natural environmental constraints, population growth and the need for surplus production to fund the construction of lineage religious monuments.

SEA, LAND, AND SKY AS STRUCTURING PRINCIPLES IN
EASTER ISLAND PREHISTORY
Helene Martinsson-Wallin
Kon-Tiki Museum, Oslo

Abstract: In this paper, I argue that the natural environment surrounding prehistoric Easter Islanders played an important role in how they structured their daily and religious life. In the early prehistoric phase, until around AD 1200-1300, much of the power investments were directed towards the sea. This is indicated by big game (seals, dolphins) and pelagic fish found in early settlements as well as in an early investment in the rear wall *ahu* (temple) architecture that faced the sea. This period was followed by an expansion period with power investments in the land. This may be detected in an agricultural development and intensification in the time period AD 1200-1600, as well as the architectural investments shown in the front wall and statues on the *ahu* structures. The final phase was directed towards the sky, which can be indicated through a growing interest in the birdman cult at Orongo as well as the destruction of the *ahu* structures starting around AD 1600. This cult continued until the late 1800s.

THE ARA MOAI OF RAPA NUI (THE EASTER ISLAND ROADS)
Charles M. Love
Western Wyoming College

Abstract: Nearly 40 km of roadways (*ara*) were constructed by the prehistoric Rapa Nui people in preparation for the transport of their huge stone ancestral figures. These statues (*moai*) may weigh 30-80 tons and were moved from the quarry at Rano Raraku to coastal or inland temples on special roadways that reveal cut and fill construction techniques. Evidence from the more than 40 *moai* abandoned along the roadways suggest they were transported and abandoned in an upright position. It is assumed that the surface road constructions represent the last engineering design for the transport of these largest statues. Three main roadways and several branch roads from them have been partially surveyed. Excavation of five sectors along the southern roadways has exposed the road surface along 210 linear meters. Our excavations show that the roadways traverse old basalt flows and the shallow valleys between them. In the valleys, the roads are of fill construction and have been built up as much as a meter or more with layers of clayey soil. The original surface is flat, consistently about 5 meters across, and the fill profiles show it to be constructed by compact lens-shaped layers. In contrast, the roadways on higher basalt flows are deliberately cut in a broad V or U shaped profile averaging 30 cm deep. Bordering these shoulders are curbstones set into the backfill. A myriad of postholes were dug into the bedrock outside of the curbstone lines, and seem to have been of two distinctive types. The postholes strongly suggest a statue-bearing contraption was fitted to the roadway, and that in addition to pulling, the whole unit needed prying along in places. The characteristics of the roadbeds strongly suggest that the *moai* moving methods by Heyerdahl, Pavel, Love, and Van Tilburg are incorrect and need to be revised.

THE AHU A RONGO PROJECT: ARCHAEOLOGICAL
RESEARCH ON EASTER ISLAND, CHILE
Nicolas Cauwe¹, Dirk Huyge¹, Sonia Haoa Cardinali²
and Francina Forment¹

¹ Royal Museum of Art and History, Brussels, Belgium
² Isla de Pascua - Rapa Nui

Abstract: Since 1935 the Royal Museums for Art and History in Brussels are in the possession of an archaic-looking colossal sculpture from Rapa Nui (Easter Island). This basalt statue, almost three meters high and weighing six tons, is one of the very few *moai* that have ever been taken from the island. It represents the deity of tuna fish "Pou Hakanononga" and is particularly interesting because it is believed to be one of the most ancient examples of its kind (the statue is tentatively dated about AD 1000-1200). The location where it was found, Ahu a Rongo, is a ceremonial complex on the west coast of Easter Island, immediately north of the town of Hanga Roa. This *ahu* (stone cult platform) has never been properly investigated. It is currently endangered by urban expansion and several other threatening factors resulting from its proximity to human settlement. A single 2 m by 1 m test unit executed in 1995 and subsequent dating of obsidian artifacts has indicated that the initial platform at Ahu a Rongo was probably constructed sometime during the 1100s. This is one of the earliest dates obtained thus far for *ahu* architecture. A preliminary survey in 1997 by Dr. Francina Forment, curator of Polynesian and Micronesian art at the Royal Museums for Art and History, has confirmed our presumption that the archaeological potentialities of the Ahu a Rongo site are considerable. For the year 2001, the funding of this new exploration at Rapa Nui is granted by the National Geographic Society (Washington, USA).

Moai Sightings

"MUSIC IN HIGH PLACES", a DirectTV series, has one episode filmed on Easter Island. These series, pairing musicians with sacred sites in the world including Machu Picchu, Delphi, and Rapa Nui, is to "capture each musician's own personal journey". The blurb, appearing in *New Age* magazine, fails to mention who is associated with our favorite island. Music in High Places is also shown at www.musicinhighplaces.msn.com

TAHAI'S FAMOUS *MOAI*, WITH EYES AND TOPKNOT, is featured on a full page (11x16") layout of *Il Giornale dell'Arte* for June 2000, sent in by our sharp-eyed Italian correspondent, Andrea Pasquelin. The photographed statue is advertising an Italian firm named Gondrand that ships works of art. The caption says "Some people think they'll never leave here" referring to the fact that Gondrand was responsible for shipping the *moai* that was exhibited in Milano a few years back. A small inset photograph shows that statue, draped in a rope netting, and in the process of being moved to the museum.

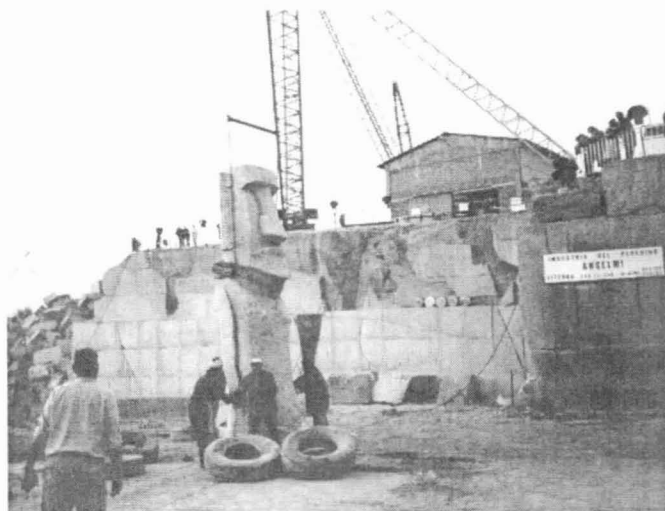
I DON'T THINK WE'RE IN KANSAS ANYMORE, TOTO. The December 26, 2000 issue of the *Topeka Capitol-Journal* has an

article describing seven Easter Island statue replicas that are standing on a hillside, overlooking US Highway 56, outside of Burlingame, Kansas. They were made by an auto mechanic named Butch Mauer who originally created one for his shop in Lyndon, Kansas. A fellow resident of Osage County, Bill Sherry, inquired about the statue and when told of Butch's longing to put up a bunch of them, he stated that he had the highest hill in Osage County, in full view of the highway. The two men erected the seven statues in October 2000. The statues are of fiberglass with wood backing and were made in a mold.

IT HAD TO HAPPEN. Now there is a *moai* lamp! As advertised in a catalog (The Pyramid Collection), the blurb states, "Inspired by the mysterious *moai* megaliths.... it casts an amber light, creating unforgettable mood and atmosphere..." Oh yessss. The resin *moai* are one foot high and cost fifty bucks.

FOR ANYONE INTO *MOAI* SIGHTINGS, check out The Book of TIKI by Sven A. Kirsten (ISBN 3-8228-6417-X) from Amazon (\$23.99). There are 287 full color pages printed on high quality paper; published by Taschen. This book explores all aspects of the Tiki Bar craze in the 50's and 60's—one more thing for which we can thank Thor Heyerdahl.

SANDY NIELSEN, A LONG-TIME Rapanuiphile, sent us an advertisement for a cruise company that has it all, in one frightening picture: pyramids, Buddha, a moose (under palm trees), the leaning tower, and our beloved *moai*, with a multicolor parrot on its head. Not bloody likely....



The village square at Vitorchiano, near Viterbo, Italy, boasts a scowling *moai* that was made in 1990 by fifteen Rapanui islanders. The photograph shows the statue in the process of being moved from the quarry with the help of a huge crane and some old rubber tires. A *pukao* was added once it was placed in the village square. Our thanks to Andrea Pasquelin of Turin for this photo.